The transformation of private equity
Value creation in the second wave of private equity

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Abstract

Title: The transformation of private equity

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Purpose: The aim of this thesis is to provide evidence to what actions private equity owners take to enhance its portfolio firm’s value creation. It also shines light on how these actions are carried out, as well as the underlying reasons for them.

Research question: What actions are taken by private equity owners in order to create value in their portfolio firms?

Theoretical framework: The theoretical framework for this thesis is based on Kaplan & Strömberg's (2009) categorization of actions actuated by the new ownership into financial-, governance-, and operational engineering. This theoretical platform will act as the foundation for the analysis of what changes that follows a leveraged buyout and how they are connected to the portfolio firm’s value creation.

Research methodology: The thesis adopts a multiple case study design based on a mixture of quantitative- and qualitative methods.

Conclusions: The thesis provide indications that the way private equity ownership creates value for its portfolio firms has changed from being a result of primarily financial engineering to being an outcome of governance- and operational engineering. Even if there still is evidence of that financial engineering is a requirement for the private equity firm, arguments can be made that the value that is added by the leveraged buyout indirectly derives from governance engineering and directly from operational engineering. The changes with highest influence on value creation are improvements of the portfolio firm’s capital efficiency and strategy.

Keywords: Private equity, leveraged buyout, value creation, financial engineering, governance engineering, operational engineering.
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1. Introduction

Private equity is a phenomenon that came of age in the 1980s in the US (Lichtenberg & Siegel 1990). The fundamental idea behind private equity is to buy firms by using high levels of debt and with the intention of selling them with a profit within a short time period. In the beginning of the 90’s private equity operators were described as “barbarians at the gate”, emphasizing that they still were on the outside but closing in at speed and at arrival they would plunder and pillage whatever company they could get their hands on. Today the barbarians of private equity have however moved from being outside the gates to having a seat in the boardrooms. This development has continued making private equity an influential actor that rapidly and radically reorganizes corporations worldwide (Wright, Amess, Weir & Girma 2009). This can be illustrated by the private equity deal activities growing worldwide from $29bn in 1990 to $917bn in 2007 (Morris 2010). Being such a forceful industry participant has naturally resulted in an augmented media scrutiny in recent years. The attention has come from a number of actors, including trade unions, politicians and other regulators, and the view of the impacts of private equity on society and its welfare has either become bearish due to horror stories such as the Carema Care scandal of 2011, or more bullish through focusing on how the ownership can transform and enhance the acquired firm. This attention has spiked a wild societal debate and once again made the barbarians topic of interest.

The surge of private equity deals have also generated a great interest from the academic world, where researchers have set out to answer what effects a private equity ownership actuates in the portfolio firm and whether it improves the acquired firms operations. In the first wave of private equity there was a notable consensus that private equity ownership created value to the acquired firm (e.g. Kaplan 1989; Muscarella & Vetsuypens 1990; Smith 1990; Lichtenberg & Siegel 1990; Smart & Waldfogel 1994) in terms of improved performance. However, the economic era of the 21st century has prompted researchers to study a second wave of private equity backed firms in the light of the new timeframe. The evidence has varied between indicating improved value creation and profitability (Cressy, Munari & Amipiero 2007; Harford & Kolasinski 2012) to slim and non-existent improvements (Leslie & Oyer 2008; Guo, Hotchkiss & Song 2011). Opposing arguments to how private equity
firms generate value have been raised, claiming that the high level of returns in portfolio firms is merely achieved by utilizing loopholes in the economical system, such as mispricing in the equity market and utilizing tax breaks or favorable information asymmetries (Kaplan & Strömberg 2009), or that portfolio firms sacrifice long-term value generation in the favor of short-term profits (Lerner, Schoar & Wang 2007).

In the first wave of private equity it seemed like the only thing needed to improve the acquired firm’s profitability was for the owners to reorganize the capital structure and increase the leverage of the firm. The intense competition of today has however started to force private equity firms to focus on creating value to their portfolio firms operations, in order to stay competitive (Heel & Kehoe 2005). Hence the key for private equity firms has in recent times evolved from the ability of improving the capital structure and increasing the leverage to also encompass enhancements in the operational efficiency and value creation (von Laskowski 2012). This has resulted in a gap within contemporary research regarding how the value creation has changed in the second wave of private equity, and to further analyze how private equity ownership generates value to the acquired firm is a topic where additional research is needed (Kaplan & Strömberg 2009).

1.1 Research question

What actions are taken by private equity owners in order to create value in their portfolio firms?

Early studies in the field of private equity are mainly concentrated to the US- and UK private equity markets (Wright et al., 2009) due to their higher level of maturity. To study a wider range of private equity markets would increase the depth of knowledge regarding how such ownership changes the characteristics of and creates value for its portfolio firms, and is a desirable topic for further research (Ibid.). There exists a large disparity between how companies are governed in Sweden compared to the US and UK, whereas the traditional Swedish governance model is to a higher degree based on controlling ownership with a long-term horizon (Henrekson & Jakobsson 2012). A study on the Swedish private equity market is fruitful since the private equity backed firms are out-performing both the public firms listed on the Stockholm Stock
Exchange, and Swedish firms as a whole (NUTEK & SVCA 2005). It is also an interesting market to study since the Swedish market is profoundly influenced by the private equity industry that employs over 4% of the Swedish workforce and accounts for roughly 9% of the country’s GDP level (SVCA 2014).

The research question of this thesis will be answered through the use of a multiple case study based on six firms on the Swedish market. It will analyze what characteristics changes as an effect of the new ownership and how this impacts the acquired firm's value creation.

1.2 Aim & contribution

The objective and purpose of our thesis is to shine light on what changes the private equity ownership actuate and how these adds value to the acquired firms. There is a gap in the academic field of private equity regarding how a leveraged buyout creates value to its portfolio firms in the second wave of private equity. This thesis aims to provide indications of how private equity ownership adds value to the firm, through highlighting what actions are taken but also the underlying reasons for them. This thesis may also provide practitioners with a clearer understanding of what effects private equity ownership generally has on the portfolio firm as well as inform the public of how private equity firms, which are one of the most influential actors in the industry today, operate.

2.0 Literature review

2.1 Private equity

There is an ever-ongoing debate about the effects of private equity and what private equity actually is. The fundamental idea behind the phenomena is although quite simple; private equity firms are companies that use equity raised from private and institutional investors, usually combined with high levels of debt, in order to acquire firms or divisions of firms in different stages of maturity and sell them with a profit (Meulbroek 1996; Morris 2010). After the acquisition the private equity firm takes an active role as owners in order to assure a positive return on the investment, usually together with top management of the acquired firm (Gilligan & Wright 2008). The
The general purpose of such takeovers are not to acquire synergy effects for any firm, as the purpose often is in acquisitions, but rather to increase the value of the firm as a stand-alone business, and portfolio firms are most commonly managed independently from each other (Baker & Montgomery 1994).

The term private equity is very wide, yet it is traditionally divided within three segments; venture capital, growth capital and leveraged buyouts (Gilligan & Wright 2008). Venture capital involves investing in new technologies and newly started companies, while growth capital is investments for a minority share post in firms that are more mature. In a leveraged buyout the private equity firm acquires a majority stake in a company using large levels of debt, and it often involves taking a public company private (Ibid.). Leveraged buyouts are by far the most substantial in the term of size as well as in terms of public influence among the three segments of private equity (Morris 2010), and it is also the scope of this paper.

No leveraged buyout is ever identical to another, yet research within the field has described the typical buyout process quite extensively (e.g. Strömberg 2008; Gilligan & Wright 2008). The first step is for the private equity firm to acquire capital for the purchase. This is most often done through investors such as pension funds, financial institutions or individual investors (Morris 2010). A specific fund is set up with a shared ownership between the investors as a passive owner supplying capital and the private equity firm acting as an active partner. In its role as manager of the private equity fund the private equity firm operates in four steps: (1) raise funds from investors (2) find investment opportunities and make investments by acquiring portfolio firms, (3) manage the portfolio firms and (4) realizing capital gains by selling the investment (Gilligan & Wright 2008). From a private equity firm’s perspective all of these steps are important to create value, however the focus of this paper is on step 3, the management of the portfolio firm during the holding period. Traditionally, the holding period of a portfolio firm is 5 - 10 years (Kaplan & Strömberg 2009). During this holding period, the private equity owners manages the portfolio firm actively in order to maximize the returns on the investment received when selling the firm, usually referred to as an exit (Berg & Gottschalg 2004).

2.2 The effects of private equity
The role of private equity firms as owners and managers of their portfolio firms is a topic that has evolved as private equity grew in size and influence (Bergström, Grubb
& Jonsson 2007), which has provided a broad spectrum of perspectives with different focuses that contributes to the understanding of how private equity ownership affects the portfolio firm (Berg & Gottschalg 2004).

In the early stages of private equity it was argued that it was enough for the new owners to focus their efforts on changing the financial characteristics of the portfolio firm, usually by increasing its leverage, to get improved financial performance. This view has been transformed in recent times (Kaplan & Strömberg 2009) and today there are multiple studies investigating how private equity ownership actually creates value to its portfolio firms (e.g. Kaplan 1989, Lichtenberg & Siegel 1990; Berg & Gottschalg 2004; Bergström et al., 2007). In the following part we will present a description of the effects of the new ownership structure based on Kaplan & Strömberg’s (2009) categorization into financial engineering, governance engineering and operational engineering. We argue that this categorization is suitable since it gives a clear overview of the changes private equity ownership generates. This categorization has also been used by other studies (e.g Berg & Gottschalg 2004; Bergström et al., 2007; Acharya, Gottschalg, Hahn & Kehoe 2012) and will constitute the theoretical platform that we will use to identify and analyze the effects on the portfolio firm.

2.2.1 Financial engineering

Financial engineering can be defined as encompassing the design, development and implementation of financial instruments, processes, and the formulation of solutions to problems in finance (Finnerty 1988). The part of financial engineering that private equity addresses is finding solutions to issues relating to corporate finance. In a leveraged buyout the owners executes a course of financial actions with the objective of value creation within the portfolio firm. These actions take the forms of employing more debt in deal structuring as well as converting traditional assets to new sources of financing (von Laskowski 2012).

There is a plentitude of reasons for and implications of using a substantial part of debt when financing the assets of the firm. Early studies focused on that debt mitigates free cash flow problems. Free cash flow problems occur when there is cash flow in excess of what is required to fund all suitable investments. The problems derive from how the excess cash should be used or distributed by the management of
the firm. The new debt-heavy capital structure that leveraged buyouts brings decreases free cash flow problems since it puts pressure on managers to make debt payments rather than investing excess cash in suboptimal projects (Jensen 1986). Lower levels of free cash flow also prevents managers from making investments that are self-beneficial rather than in the interest of the firm, for example empire building (Ibid). This is the result of creditors that provides the loan having, unlike shareholders, the legal rights to take actions against the firm if it would fail to service the debt payment. This enables a better way of disciplining the management of the firm and makes debt a more efficient tool of control than dividends (Jensen 1989).

However, there are reasons for having higher levels of free cash flows as well. For instance managers may feel the need, or have incentives, to retain cash because they strive for autonomy from the capital markets or as a precautionary cushion for the firm if an unforeseen shock would occur, for example, increase in interest rates or shortfall in demand (Singh 1990). High levels of debt may also reduce the portfolio firm’s potential to make strategic investments, which leads to a lowered ability of responding to threats and fiercer competition (Kaplan & Strömberg 2009) and can therefore be harmful for the company.

Von Laskowski (2012) emphasize that the primary source of value creation in the portfolio firms that derive from financial engineering comes from capitalizing on the private equity owner’s information, experience, and knowledge of the capital market. This may result in an improvement of the portfolio firm’s capital structure, and a reduction of its tax obligation through various optimization efforts. Private equity firms are repeated players in the debt market and uphold a good reputation of being a good customer, meaning a good borrower, which in combination with the firm’s vast knowledge of the capital market and extensive network results in better financing terms (Magowan 1989; Anders 1992). This combination facilitates cultivating long-term relationships and is being highlighted as a key success factor for influencing the portfolio firm’s value creation (von Laskowski 2012). This competence can be perceived as getting of increased importance for Swedish portfolio firms since it’s more difficult to get access to capital in Sweden than in an American setting (Lerner & Tåg 2013).

Further, higher levels of debt increase the interest payments and these are generally tax-deductible, which becomes a tax shield for taxable incomes (Kaplan 1989). The fact that interest payment on debt is tax deductible while dividend
payments to equity holders is not lowers the cost of capital when adopting debt (Morris 2010) and has been mentioned as one of the key success factors of private equity firms (Lowenstein 1985; Kaplan 1989)

### 2.2.2 Governance engineering

In the beginning of private equity, academia focused primarily on agency theory to explain the differences the new ownership structure created and how that affected the value creation process of the portfolio firm (Berg & Gottschalg 2004). Agency theory is the analysis of the conflicts between the managers and owners, usually referred to as agency costs, and it stems from the separation between control and ownership and the lack of goal alignment this results in (Jensen 1986).

The corporate governance that follows a leveraged buyout is unique, with an emphasis on increased ownership stake and extensive incentive programs among top management, and active monitoring by the owners (Wright et al., 2009). These corporate governance mechanisms are implemented in order to mitigate agency costs through an improved goal alignment between owners and top management (Gompers, Kaplan & Mukharlyamov 2014). The private equity ownership provides the management team with a large equity upside through stocks and options in return for a substantial investment in the company (Nikoskelainen & Wright 2007). This makes the management act like owners at heart since they both have a significant upside and downside depending on the performance of the firm (Jensen & Murphy 1990).

The governance engineering undertaken after a buyout results in an increase in active ownership of the portfolio firm (Hite & Vetsuypens 1989) since the private equity firm has a strong interest in securing positive returns on their investment (Kaplan & Strömberg 2009). This is achieved by an augmented demand of access to monthly management accounts, reviews of sales and margins and by working close to the portfolio firm’s management and board of directors (Rogers, Holland & Haas 2002; Acharya & Kehoe 2008).

Active ownership is usually carried out through the board of directors (Jensen & Fama 1985) and the private equity owners keep the portfolio firm’s board of directors relatively small under the new governance structure, which is argued to be more efficient than larger boards (Gertner & Kaplan 1996). This is generally done by appointing one or several individuals to represent them on the board in order to assist
in the day-to-day work with the chief executive officer (CEO) (Zong 2005). This results in that the new owners have a higher influence since they are much closer to the operations and management than the board of directors of public organizations (Berg & Gottschalg 2004)

2.2.3 Operational engineering

As described earlier, the leveraged buyout industry has become increasingly competitive, forcing private equity firms to adapt and improve. During the 80s and 90s the value created mainly came from financial engineering, but as the financing got cheaper in the 21st century all industrial companies got the capability of financial engineering (Kaplan & Strömberg 2009). This does not mean that financial engineering is not an important element anymore in the private equity model, but rather that it has been transformed from being a differentiating factor to a requirement to stay competitive (Ibid.). There is a trend in the contemporary view of how value is enhanced by a leveraged buyout and it is highlighting operational engineering as the main driver of the improved performance (Heel & Kehoe 2005).

Operational engineering refers to the operational expertise and actions that the private equity firm brings and how it is used to improve the value of the portfolio firms’ operation (Kaplan & Strömberg 2009). This knowledge is applied to identify profitable investments and to develop and implement plans for value creation (Wright, Robbie, Thompson & Starkey 1994). These plans may for example include enhancing productivity, provide strategic changes or repositioning, or to identify acquisition opportunities (Acharya & Kehoe 2008; von Laskowski 2012).

While financial engineering primarily focuses on aspects such as capital structure and cost of capital, operational engineering pays attention to the left side of the balance sheet, and focuses on measures that improve the overall productivity or effectiveness of operations. Operational productivity can be enhanced through actions such as cost cutting and margin improvements (Muscarella & Vetsuypens 1990). This is done by increasing and tightening the managerial control of corporate spending (Magowan 1989; Anders 1992) and initiating cost reduction programs (Kaplan 1989).

The portfolio firm also increases the attention of reducing the capital requirement through operational actions. This is commonly executed through a more efficient use of the firm’s corporate assets (Bull 1989), which can be achieved by
rationalizing corporate operations through an improved management of working capital (Holthausen & Larcker 1996) by for instance streamlining the inventory (Singh, 1990; Long & Ravenscraft 1993). Furthermore capital expenditure is put under profound scrutiny by the new owners to identify and remove suboptimal investments (Phan & Hill 1995).

Private equity owners do not hesitate to replace underperforming management (Anders 1992) or managerial inefficiencies (Berg & Gottschalg 2004). One-third of CEOs of the portfolio firms are being replaced in the first 100 days and two-thirds are being replaced sometime during the first four-year period (Acharya & Kehoe 2008). Replacing the management team is seen as an instrument for restructuring the organization if the firm is underperforming. Replacing the management team in charge of the portfolio firm is often a way to boost the operational effectiveness, yet it brings along other strategic advantages as well. Executives can be handpicked by the private equity managers based on the knowledge and expertise that is required in the specific case (Berg & Gottschalg 2004). This is possible since the new owners have the capability to offer an ownership stake and considerably higher compensation that is closely tied to performance, and due to that replace underperforming management with talented and experienced executives. This ability has been connected to improvements of operational productivity and a growth in sales and profit (Kaplan & Strömberg 2009). In addition to the possibility of recruiting new management private equity ownership also brings a large network of contacts from various industries, especially in the financial and consulting markets, with knowledge that can be utilized to create value in the portfolio firm (von Laskowski 2012).

The second part of how the industry and operational expertise, that accompanies the leveraged buyout, is utilized to provide value for the portfolio firm is through strategic changes and distinctiveness (Kaplan & Strömberg 2009). This is enabled by the private equity owner having a wider scope of knowledge related to strategic questions, which has been acquired from previous ventures. This knowledge is used to redefine strategic issues such as which markets to compete in and with what products, as well as changes in pricing, product quality, customer service, product mix, and distribution channels (Berg & Gottschalg 2004). The altering of the portfolio firm’s strategy is often with the objective to align its operations to its core competency strategy put forward by Prahalad and Hamel (1990), and this is generally
carried out through divesting, selling or by outsourcing the parts of the company that are not completely in line with the firm’s core business (Seth & Easterwood 1993). Wright, Hoskisson & Busenitz (2001) does however make it clear that private equity owners that primarily focus on downsizing are a relic of the past and that recent private equity owners builds strategies based on the specific case of the firm and with the aim of contributing with as much value as possible.

2.3 Summary of private equity’s effects

A majority of the literature identifies several areas where private equity firms are successful in creating value for their portfolio firms. These areas are categorized within three categories: governance engineering, financial engineering, and operational engineering. Historically financial engineering has been seen as the most influential of the three, yet in recent time the importance of operational engineering is argued to be increasing. The changes undertaken by private equity firms within governance-, financial-, and operational engineering can be summarized as following.

<table>
<thead>
<tr>
<th>Financial Engineering</th>
<th>Governance Engineering</th>
<th>Operational Engineering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased debt level</td>
<td>Ownership stake among top management</td>
<td>Improved productivity, e.g. through cost cutting and margin improvements</td>
</tr>
<tr>
<td>Decreased level of free cash flow</td>
<td>Increased incentive programs for top management</td>
<td>Decrease of working capital</td>
</tr>
<tr>
<td>Improved sources of financing</td>
<td>Increased active ownership</td>
<td>Changes in top management</td>
</tr>
<tr>
<td></td>
<td>Providing industry expertise through board of directors</td>
<td>Changes in strategy</td>
</tr>
<tr>
<td></td>
<td>Reduced size of board</td>
<td>Decreased level of capital expenditure</td>
</tr>
</tbody>
</table>

Table 2.1
3. METHOD

3.1 Research design
The study’s methodological design will be based on a series of case studies, where we follow six portfolio firms at three different stages of the private equity holding period; before, halfway through-, and at the exit of the holding period. Since the aim of this thesis is to analyze and verify what changes is actuated by the new ownership in order to create value, and gaining and understanding of why these are implemented, we have adopted a retrospective character to the study, which enables a holistic perspective of the phenomenon as well as giving us the ability to follow and illustrate the changes that have taken place in the past and over time (Easterby-Smith, Thorpe & Jacksson 2008).

Prior research within the field have predominantly conducted comprehensive quantitative studies (e.g Kaplan 1989; Lichtenberg & Siegel 1990; Strömberg 2008; Harford & Kolasinski 2012), yet only a limited number of studies have focused on analyzing case studies, for instance Baker & Wruck’s study (1989). While these comprehensive quantitative studies generate results with a higher degree of generalizability, we argue that adopting a methodology based on case studies is more suitable for this study’s purpose. When studying a complex phenomenon, such as how a new ownership affects the value creation process of an acquired firm, case studies are argued to provide an appropriate research design (Merriam 1988; Bryman & Bell 2007 p. 60). This is due to that in this kind of situations the objective is not to craft new theory with high generalizability, but rather to find indications that can act as a foundation for further research (Eisenhardt 1989). By adopting and applying multiple case studies we will be able to gain profound insights and in-depth knowledge, (Bryman & Bell 2007 p. 60) which is necessary when trying to find indications in a complex and uncharted topic (Merriam 1988). The research approach is also well suited for the study’s descriptive and longitudinal nature (Ghauri & Gronhaug 2010) since it is adapted to answering what changes comes as an effect of the new ownership. Multiple case studies are also preferable to a single case study since it
improves the generalizability, (Yin 2003) which we argue will verify whether the findings occurs in the same manner in more cases. The study also adopts a mixed approach of both quantitative and qualitative methods. To use a mixed method research design is suitable for this study since the purpose is to both test and verify what happens after the leveraged buyout, and also to gain a deep understanding of how and why the changes takes place (Ghauri & Gronhaug 2010). To employ a mixed method approach is rewarding since the quantitative methods will enable us to grasp what changes actually occurs (Tashakkori & Teddlie 2003) while the qualitative approach makes the quantitative data more meaningful and understandable, (Jensen 1991) as well as makes it possible for us to analyze how and why the changes are initiated (Miles & Huberman 1994). To employ a mixed method research design has also been argued to enhance the study’s validity since the methods can be used to triangulate each other (Saunders, Lewis & Thornhill 2009) and increase the depth of knowledge (Tashakkori & Teddlie 2003).

3.2 The analytical model

To analyze what actions the private equity owners take to generate value in their portfolio firms we have established a set of key indicators based on Kaplan & Strömberg’s categorization into financial-, governance-, and operational engineering, which is depicted in table 2.1. We argue that having an analytical model with a strong connection to the literature within the field enables us to easier and more correctly interpret and link our empirical result to the literature. While all of these changes predicted in the literature will be studied qualitatively through interviews, selected variables will be also be measured quantitatively based on data from annual reports of the selected case firms. Through this, our aim is to have a quantitative aspect that indicates what happens after the entry of a private equity owner, while the qualitative method’s purpose is to provide an understanding of how and why these actions take place. Not all variables in table 2.1 will however be measured quantitatively since some are less quantifiable due to their complex nature, for example enforcing strategic change and financial expertise that leads to improved sources and terms of finance. Other variables are rather infeasible and impractical to measure quantitatively, such as ownership stake of management, due to a limited access to the portfolio firms and restricted timeframe of the study.
3.3 Choice of quantitative measurements

The quantitative measurements are selected to study whether the changes that have taken place are in line with the predictions from the literature (see table 2.1) and will be used as a foundation when analyzing the results.

3.3.1 Financial engineering

Within the category of financial engineering it is predicted that private equity ownership results in changes within three aspects; an increase in debt, reduced free cash flow, and improved sources of financing. Among these we have selected two aspects that we believe are suitable to measure quantitatively: an increase in debt, and a decrease in free cash flow. In order to measure the level of debt we will look at the ratio of long term debt to book value of total assets, a measurement that has been used in similar studies before (Bergström et al., 2009).

\[
\text{Debt ratio} = \frac{\text{Total long term debt}}{\text{Total assets}}
\]

Free cash flow is argued to be a measurement of how private equity ownership counteracts problems related to agency costs when the firm has excess cash. While a low level of free cash flow is argued to signal an efficient use of capital, a high level is however believed to be typical for managers in corporations with a lack of goal alignment between the manager and the shareholders (Jensen 1986). We believe that analyzing the level of free cash flow is a suitable way to provide indications of how the changes in financial engineering may affect the value creation of the firm, and it is a measurement that has been utilized in similar studies before (Lehn & Poulsen 1989). The level of free cash flow will be divided by book value of the equity of the firm to put it into relation to the size of the firm, and thus making the comparison between different cases just.

\[
\text{Free cash flow to equity} = \frac{\text{Operating cash flow} - \text{operating expenses}}{\text{Equity}}
\]
3.3.2 Governance engineering:

The changes that are predicted to take place within governance engineering are an increased ownership stake and augmented use of incentive programs among top management, increased active ownership, and supply of expertise to the board of directors. Theory also highlights that the board is often reduced in size during a private equity holding period. Of these we aim to measure the use of incentive programs and the size and composition of the board quantitatively. In order to measure and analyze in which degree the private equity firm have acted as an active owner, we will study how the composition of the board of directors have changed, as that is most commonly how active ownership is enacted. In addition, we will measure how the size of the board has developed during the holding period. We will also study the use of incentive programs in the selected sample of firms by measuring how much bonus related income the board and CEO receives. To make the results comparable between different firms we have chosen to take the bonus related income in proportion of total revenue.

\[
\text{Incentive systems} = \frac{\text{Bonus related income among board and CEO}}{\text{Total revenue}}
\]

3.3.3 Operational engineering

Within operational governance it is argued by studies that private equity ownership should have an impact that improves productivity through cost reduction and improved margins, decreased level of working capital, changes in top management, changes in strategy, and a decrease in capital expenditure. Actions such as margin improvements and cost reductions are described as means to improve the productivity of the firm, and are two important actions, among many, that private equity owners are believed to focus on with this goal. In order to measure whether the new ownership generate any value within productivity we argue that this is best measured by analyzing the level of revenue per employee, which have been used in similar studies earlier (Lichtenberg & Siegel 1990). Measuring the level of revenue per employee is in our opinion a measurement that is wide enough to capture the overall

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1 Bonus related income will be measured as “tantiem” in the firm’s annual reports, which equals the part of income that is incentive based.
2 Capital expenditure will be identified as “investeringar i anläggningstillgångar” in the annual reports,
changes within productivity the private equity owners are believed to focus on. By measuring other measurements of productivity that are less wide we believe that we would not be able to include the whole scope of changes that are argued to take place.

\[
Revenue \ per \ employee = \frac{Total \ revenue}{Total \ number \ of \ employees}
\]

To study whether any reductions in inventories, improvements in product chain, or similar actions within operational engineering have actually created any value to the firm’s profitability, we will like other research papers (Baker & Wruck 1989; Smith 1990) study the ratio of working capital of the firm.

\[
Working \ capital = \frac{Current \ assets}{Current \ liabilities}
\]

The theory within the field presumes that the structure that follows a leveraged buyout reduces the risks of suboptimal investments made by the management. This is due to a plentitude of reasons, for instance, an increased goal alignment, downsizing towards the firm’s core business, and the owners utilizing their financial experience and expertise in trying to make the firm more efficient. These implications result in that capital expenditure is expected to be reduced after the buyout.\(^2\)

To make the level of capital expenditure comparable between firms it will be measured as a ratio of the firm’s revenue, thus giving a picture of how much of the firm’s cash flow is reinvested as capital expenditure.

\[
Capital \ expenditure \ ratio = \frac{Capital \ expenditure}{Revenue}
\]

To study any changes in top management we will also measure if there are replacements in the position of CEO during the holding period. Within research, the CEO is often used as an example of how private equity owners undertake changes in top management when the firm is not developing in the direction they want. Further, we argue that changes of CEO is a suitable measurement for changes in top

\(^2\) Capital expenditure will be identified as “investeringar i anläggningstillgångar” in the annual reports, which is argued to be the equivalent to capital expenditure (foretagsvardering.org, 2015)
management in this study since it is information that is receivable through the annual reports.

3.4 Data Collection

3.4.1 Case selection

The case companies are selected by reviewing the largest private equity firms on the Swedish market and their former holdings of Swedish portfolio firms. To identify the case companies we have used the private equity firms’ websites. Empirically, the larger private equity firms are more successful in generating value to their portfolio firms, which we argue makes them the most suitable to study in order to determine what characteristics drives that success. The lack of insight and transparency into private equity operations have been argued to be a crucial factor in explaining the lack of earlier in depth studies within the topic, this is however solved to some degree by looking at a Swedish context. Due to Swedish legislation, all firms are required to make their annual reports public, which allows us to compare changes in the quantitative measurements discussed above. The portfolio firms that will constitute our different case studies will be selected with the purpose of giving us the most correct and just picture of the Swedish private equity landscape. First, the portfolio firm must be Swedish. Further, the previous owner cannot be a private equity firm since the purpose is to see a distinction between private equity and non-private equity owners. The private equity firm must also be the majority owner after the acquisition, and the buyout must have taken place during the 21st century in order to be considered as a part of the second wave of private equity. For us to be able to conceive any clear indications of what changes the private equity firms undertake, the holding period must exceed two years, since we argue that this timespan is enough for the changes to become apprehensible. In order to separate leveraged buyouts from other forms of private equity such as venture capital or growth capital, the portfolio firm must have revenue of 100 MSEK, which is a distinction used in the private equity industry (SVCA 2014).

3.4.2 The case companies

After analyzing the private equity firms that are active on the Swedish market and their former holdings in the light of the determined selection criterions, we were able
to identify six case companies that were a match for our study. The case companies are Lindab AB, Exotic Snacks AB, Bravida AB, Permobil AB, Byggmax AB and Gambro AB. These firms are also in six different industries, which we argue provides a more comprehensive view on the effects of private equity as well as strengthening the generalizability of the study.

3.4.3 Comparison group

The observed changes within the case companies will later be analyzed and compared in relation to a selected comparison group. The main purpose for a comparison group in our study is to act as a reference to the selected portfolio firms in order to identify the impacts of the private equity ownership. Thus it is important to have a comparison group that resembles the chosen portfolio firms as much as possible, excluding the private equity ownership. We have chosen to compare our results in the portfolio firms to a comparison group consisting of three competitors from the same industry as the case firm. We are adopting an official system that categorizes industries to find these competitors, and since we are limiting our study to Swedish firms we are using Svensk Näringsgrensindelning (SNI). This methodological approach has been adopted by a several studies within the field of private equity (e.g Kaplan 1989; Bruton, Keels & Scifres 2002; Bergström et al., 2007). One alternative to our chosen approach is to compare the case firms to a general index of their industry. We do however argue that a comparison limited to the closest competitors is more fruitful since they are more similar to the case companies, an argument which is supported by Bruton et al. (2002).

To adopt a comparison group will mitigate the risks of that macroeconomic or industry comprehensive trends will influence the analysis. The competitors have been identified by searching after the SNI codes in the database Business Retriever. To find the closest competitors we have selected the three ones that are as equal in revenues as possible to the portfolio firms.

3.4.4 Interviews

The interviewed employees at the private equity firm were chosen based on their knowledge of the changes that occurs in the portfolio firm as an effect of the leveraged buyout. The interviewed have been employed for thirteen, nine, and three
years at one of the largest private equity firms in the world as well as on the Swedish market. The individuals have been responsible for managing the acquired Swedish portfolio firms and have holistic and hands-on information on how a leveraged buyout affects and drives the value creation process of the acquired firms. The interviewed have the positions of partner, managing director, and investment director, all of which we argue require vast experience and hands on and in-depth knowledge of the management of portfolio firms.

In order to give a deeper understanding of the changes that occur within the portfolio firm we have also interviewed the CEO of one of the selected case companies, Permobil. We argue that this enables us to get a more nuanced picture of how private equity ownership affects the portfolio firm by having a vantage point from the other side of an acquisition, meaning the acquired firm. Gaining the perspective from the portfolio firm as well gives us a deeper understanding and negates the risk of getting a biased picture due to only gathering information from a private equity perspective.

3.4.5 Design of interviews

The interviews were conducted in a semi-structured fashion to ensure us the opportunity to ask additional questions on an ad-hoc basis in order to get deeper knowledge of how the changes took place at the portfolio firm and why (Easterby-Smith et al., 2008). Semi-structured interviews has been argued as the most effective and convenient way of gathering information (Kvale & Brinkmann 2009), and it also enables the interviewed to respond in their own terms and language which is of essence when trying to understand how the interviewed perceives the phenomenon under study (Qu & Dumay 2011).

We prepared questions that were sent to the interviewed beforehand to give them an idea of what we were going to ask and the possibility to prepare themselves. The questions were guided by the identified engineering themes by Kaplan & Strömberg (2009) in a consistent and systematic manner, and these were designed to probe elaborate responses and an open conversation between us and the interviewed. Further we phrased the questions in a manner that would not lead the respondents in a certain direction. This is crucial to enable an open conversation and to understand a phenomenon from within the world of the interviewed (Schwartzmann 1993). To improve the trustworthiness and credibility of the data provided by the private equity
personnel we assured them anonymity, which is argued to give more honest and open views (Dijk & Dick 2009). Three of the interviews were carried out over phone, which resulted in that we could not observe the interviewee while the individual were responding to our questions which was a disadvantage. Face to face interviews does in this sense provide much more details in the answers (Saunders et al., 2009) yet we were limited by the preferences of the interviewed. All of the interviews took between 30 and 45 minutes each.

3.4.6 Presentation of data

The results of the study will be presented categorized in financial-, governance-, and operational engineering in the empirical results section. The results from the quantitative study will be illustrated through graphs. A comparison between the average development of the case companies will be put in relation to the development of the comparison group, and in the cases where a specific private equity firm stands out, the data for that firm will be presented as well. In addition, the data for all the private equity case firms will be illustrated in the appendix section since not all data is relevant to highlight in every case. Further, the results from the conducted interviews will be presented as a summary of what the individuals said, with quotes being used to highlight specific parts of interest.

3.5 The credibility of the research findings

While the quantitative part of our research design upholds a high reliability due to a standardized and transparent method, (Saunders et al., 2009) one could perceive that the qualitative part lacks it. However, the flexibility that comes from not using a standardized method for interviewing was crucial and provided the ability to explore the complexity of the topic. Without this element we would not have been able to research how private equity ownership affects the portfolio firms in a new context. Hence the trade-off for trying to improve the reliability of the qualitative part would come at the expense of the flexibility of being able to ask ad-hoc questions, which would lead to less in-depth knowledge and an exacerbation of the results.

The study’s research design can be criticized for its validity since it doesn’t provide us with data that assures us that we are examining solely the effects of the private equity ownership. We will be able to get insights and indications of how the case...
companies have been transformed during the holding period of the private equity firm and what actions the new owners have actuated. We will however not be able to answer with a high certainty if these changes are in fact directly related to the new ownership, as they may have been triggered by a broad range of factors. Some changes may be caused by the new ownership while others may derive from within the firm itself. To increase the validity and mitigate this risk we have chosen to conduct a multiple case study instead of one based solely on one case study, as well as we have aimed at triangulating the data with a mixed method research design.

Generalizability is another issue when adopting a research design based on case studies. The usefulness of case studies is frequently criticized, and its opponents argue that the results and conclusions may be interesting but unconvincing due to the non-generalizability that comes as a result of the contextual character of the study (Otley & Berry 1994). To adopt a multiple case study has been argued to mitigate this risk (Yin 2003), yet we have also chosen to identify as many case firms as possible, in different industries, to strengthen the universality and generalizability of the study. This research design has also enabled us to circumvent the private equity issue of limited amount of data available since we only needed to get access to a small number of firms’ annual reports. To build up a huge database would have been preferable, however due to the restricted time frame this were not possible. The chosen research design brings implications for the study’s results and we emphasize that the primary focus of it is to provide indications that may inspire further and more comprehensive studies, not to illuminate some kind of universal truth with a high degree of generalizability.

4. Empirical results

4.1 Financial engineering

Our study shows that five out of six case companies increased their debt ratio from the first period, the pre-buyout stage, to the second period, the halfway through stage. They went from having an average debt to assets ratio of 0.20 to 0.54. The average level of debt does however decrease between the halfway through stage to the stage before exit, from 0.54 to 0.43. An interesting case in terms of debt is Exotic Snacks that goes from being without any long term debt to picking up a debt to assets ratio of 0.67 between period one and two.
When addressing how high levels of debt affect the operations and value creation within the portfolio firm all of the interviewed at the private equity firm argue that the impact is very low. They stress that the financing structure is unique for every acquisition and adapted to the nature of the portfolio firm and that there is no law for portfolio firms to have a high debt ratio. The managing director puts it in the following way:

“Debt for the sake of debt is useless, it only raises the risk level. The financing structure has to be tailored to each deal, firm, industry and strategy. If the debt is affecting the operations of the firm then you have done something wrong in the work with the financing structure.” – Managing director

The CEO of Permobil does dispute the private equity owner’s view of that debt doesn’t affect the operations of the firm. He argues that a high level of debt can remove the safety cushion the firm has built up and force management to reduce capital expenditure and initiate cost control. He states that the management felt a restrain under the first year of the holding period where they didn’t invest in the same manner they would have before and he meant that this was a result of the increased level of debt. He further argues that this had a negative impact since the firm was not able to invest in certain profitable projects they otherwise would have done. Although, he emphasizes that the impact of the debt decreases during the holding period as the firm pays off its debt, a trend that can also be seen in table 4.1.
The investment director emphasize that the level of debt has decreased in recent years, and that owners want larger margins today to avoid the effects that can come from carrying too much debt, especially after the financial crisis of 2008. The partner of the private equity firm agrees to this by stating that high levels of leverage were more common in the past, and that this has changed. Before, when the market was immature and with less competition, private equity firms were able to simply finance deals with a high level of debt and gain profits from the leverage. He argues that this strategy is not viable today and that the debt of every acquisition must be tailored specifically to that firm’s business and nature. He does although highlight that leverage is still a part of private equity’s success, but rather by maximizing the potential profit at the exit.

The free cash flow to equity ratio in the case companies has throughout the three periods developed from a level of 0.21 in the pre-buyout phase, to 0.4 in the second period to become 0.67 at the period before the exit. The comparison group shows small tendencies of an opposing trend going from 0.32 to a level of 0.25 at the period before exit. In the case companies four firms out of six experienced an increase in free cash flow to equity over the holding period.

![Graph of free cash flow to equity](chart.png)

**Table 4.2. Free cash flow to equity.**

Permobil was one of the two firms that showed a decreasing trend of free cash flow to equity and the CEO said this was achieved by management understanding the effects that comes with having too much free cash. He states that the private equity firm
never worked specifically with free cash flow, but that the focus on the financial side of the business they brought to the table helped the management to understand its importance. He further argues that the new ownership really pushed the management of Permobil towards using the capital in a more efficient manner.

All of the interviewed at the private equity firm states that free cash flow problems are rarely something they put any emphasis on in a controlling aspect. They both state that while it may be something they have to deal with in some cases it is not something they work with specifically. The partner highlights that in the cases free cash flow problem is an issue it never comes alone, it is always a symptom of a poorly run business where there has been too little focus on the economical aspects.

The interviewed at the private equity firm had rather similar views of how they worked with financial engineering in order to create value within their portfolio firms. They argue that within financial engineering, their impact as owners on value creation was the largest in regards to the networks and experience within financing they bring. The managing director explains that the private equity owners have a team that works out the financing for each deal. When portfolio firms are in the process of larger projects or acquisitions that requires funding they are encouraged to seek help from this team in order to find suitable solutions. Further, the managing director argues that this is something that impacts the portfolio firms’ operations by allowing them to pursue new investment opportunities since the required rate of return of these is lowered. The partner expresses similar views and puts it as following:

“We have a team that is fully dedicated to finding the best way to finance acquisitions, and they are very good at what they do. [...] Having access to this expertise is of course something that affects the portfolio firm’s operations. It allows firms that have traditionally focused on organic growth to widen the scope to acquisition-driven growth as well.” – Partner

The CEO of Permobil takes this one step further and argues that one of the most influencing capabilities the private equity ownership contributes with is their financial expertise and how it improves financing for the portfolio firm. He argues that this is one of the main drivers of value creation that the new owners add.
4.2 Governance engineering:
When discussing goal alignment as an effect of private equity, all of the private equity representatives state that creating a goal alignment with top management is another crucial factor for the holding period to be successful. Before the buyout the private equity firm either reaches an agreement with the existing top management on an action plan and a strategy for the firm, or put together a management team of their own to take over the firm. This is argued by the managing director to be vital since without goal alignment, the necessary changes proclaimed by the new private equity owners, often fail to be implemented. Furthermore, he argues that no matter how good the new strategy is or how many improvements there can be at the firm it won’t be successful unless top management truly believes in it and act towards it. Making sure they have the right people in place and that they are on board with the planned changes is also argued by the partner to be crucial. To further increase the goal alignment the top management are required to make a substantial, personal investment in the firm. As the managing director puts it:

“It is one thing for management to say that they are on board with the plan, but putting your own money on the line is a whole other story, that shows real commitment. After they invest in the company we are all in the same boat, and that helps a lot when it comes to making hard decisions.” – Managing director

The partner adds that the fear of making a financial loss is a strong motivation for top management and it makes them think twice before making investments and major decisions. He believes that it is rarely that this fear has a negative impact though, but rather that it motivates the management to utilize all of the new tools they have at their disposal, such as expertise on the board or the private equity firm’s financing team. Without this fear he argues that it would be easy for the management to continue in the same direction as before. The fact that having an ownership in the firm had a positive effect on motivation and goal alignment is also supported by the CEO of Permobil.
The average level of compensation for top management within the case companies before the buyout was 0.44% of revenue, comparable to the average compensation of approximately 0.73% within the comparison group during the same period. During the holding period the average compensation among the private equity firms decreased to 0.42% in the second stage, and to 0.4% before the exit. During the same period the average compensation of the comparison group decreased to 0.59% halfway through the period and to 0.57% at the end. Of the private equity owned firms, the annual reports showed an increase in the bonus related income for top management in three of the six portfolio firms.

The managing director highlights that incentive programs are a tool private equity firms work with, but not in any higher degree than in other firms. Both the partner and the investment director argues that the motivational impact incentive systems would have on management is already achieved through their ownership stake, and that they in fact use incentive programs in a lower extent than non-private equity owned competitors. In the cases where incentive programs are used they argue that it is because they want to encourage personnel to focus on a specific project or goal.
The results from the case companies shows that the average size of the board of directors before the leveraged buyout was 7.1 persons and at the end of the holding period it had increased to an average of 7.8 persons. Furthermore, the case companies changed the composition of the board over the holding period with an average of 6.3 persons. In the comparison group the average size of board was 5.3 persons over the period and they had fewer changes in the composition of it, where the average of changed persons in the board reached a number of approximately 2 over the holding period.

In the case of Permobil, four changes were made in the board during the holding period and the CEO goes as far as to argue that the most important factor affecting the firm that derived from the private equity ownership was the influence that came out of the increased active ownership.

“Before the entrance of private equity the board consisted of inadequate and scared old men that did not have much experience besides dealing with receivership. The new owners reformed this and handpicked people with talent and experience from the industry. The private equity firm also gave spots to two of their own guys, which also enhanced the discussions and provided necessary tools while safeguarding their interests. [...] The new owners totally changed the approach of steering the firm, from a defensive one to an offensive one.” - CEO of Permobil
Both the partner and the managing director emphasize that changes in the board is one of the first actions that are taken after an acquisition. They state that the private equity firm always has two or three representatives in the board of directors of the portfolio firm. The managing director states that it is very rare that board members from before the acquisition remains, since they often have loyalty to the previous owners. All the interviewed of the private equity firm perceive the board of directors as a natural place for them to control the firm and enact influence through a more formal channel than the regular meetings they have on an informal level. The partner argues that the size of the board is seldom an issue that is focused on, but rather that the owners make sure that the management has the needed expertise and support to execute the changes in strategy. Furthermore, the partner elaborates and says that this expertise is in many cases vital for changes in the strategy to be successful. The composition of the board is rarely decided at the buyout stage but rather evolving during the holding period together with the management in order to fit the development and the needs of the portfolio firm’s strategy.

The CEO of Permobil argues in line with the interviewed from the private equity firm stating that the individuals recruited by the private equity firm to the board provided new insights and perspective that were useful when planning and implementing the firm’s strategy. He also emphasize that the private equity owners also demanded a lot more information and communication. They created both a formal and an informal channel between the board and the owners. All these measures were important for Permobil since they enabled a fruitful discussion that in the long run led to improvements of the operations.

Both the partner and the managing director stresses that they use the board of directors to become active as owners. As the partner puts it:

“We are extremely active as owners, and the board is one place for that. I believe that we operate very effectively through the board since we rarely have to compromise between different agendas. We are all on the same team. [...] The people involved have often done this many times before and it is the only thing we do, and we are very good at it.” – Partner

The partner states that it is important for them that the management of the portfolio firm sees the board as a resource, rather than owners with the purpose of controlling
them. They often encourage management to turn directly to certain members of the board that have competence within different fields, instead of dealing mostly with the chairman of the board, as the partner argues is common in public companies. He stresses that being an active owner is imperative for the holding period to be successful, no matter the character of the portfolio firm.

4.3 Operational engineering:
The average revenue per employee among the portfolio firms before the buyout was at SEK 2 541 000, comparable to SEK 2 330 000 among the comparison groups. After the buyout the average among private equity firms saw an increase to SEK 3 379 000 halfway through the ownership and at SEK 3 846 000 per employee before the exit. This can be compared to the comparison group that had an average of SEK 2 579 000 halfway through and SEK 2 883 000 at the end of the holding period. These developments shows that the private equity backed case companies experienced an increase by 51% over the holding period and that the comparison group had a more modest development with 24% over the measured period, as seen in table 4.5. All case companies experienced an increase in revenue per employee, and in one of the cases this development was extra noticeable. The portfolio firm Byggmax obtained a growth rate where the firm more than doubled its revenue per employee over the holding period while increasing its staff size with approximately 35%.

Table 4.5. Revenue per employee (thousands SEK).
According to the CEO of Permobil, which also had a positive trend in this regard, did the new owners continuously emphasize that the firm should try to find new ways to become more efficient and that they always provided the tools necessary to cut costs or improve margins. The continuous strive for making the business more efficient comes in many forms, yet he highlighted that their private equity owners really encouraged that the management should make more profound analysis on key numbers and report them frequently. This change provided management with updated, real-time numbers and made them question the way things always had been done. The CEO emphasized that questions such as, are these product segments or markets as profitable as we thought were raised and that these became the foundation for improvement.

When discussing the impacts private equity ownership had on the operational activities of the portfolio firms both the partner and the managing director had similar views. They both argue that one aspect that private equity ownership often results in is reducing costs and improving margins, yet they stress that downsizing and cutting costs should not happen within the portfolio firm’s core business. Further, while cost cutting is one recurring effect of private equity ownership, both the partner and the managing director highlights that it is rarely something they need to put a lot of focus on themselves, but rather something the management takes care of. As the partner puts it:

“After an acquisition cost cutting comes natural in the places where it’s needed. [...] When we enter as owners many employees sees it as a wakeup call and tries to step up their game. Some see it as an opportunity to impress while some see it as a risk to their jobs, but in general most managers see it as a chance to showcase themselves, and this is naturally done by trying to find improvements within their own division.” – Partner

All the interviewed at the private equity firm are clear on that cost cutting is carried out on a case-by-case basis, and they don’t consider it to be one of the main factors for the investments success.

The managing director states that the ability to generate value begins already in the due diligence process where the private equity firm thoroughly analyzes the potential
acquisition’s current operations to find between five and seven areas in need of improvements. He argues that this groundwork later becomes the foundation for a value creation plan that the new ownership sets in motion to enhance the portfolio firm’s operations. This process of planning and implementing change to the acquired firm’s operations with the objective of generating value is being highlighted as a key success factor for the new owners and is highly prioritized throughout the holding period.

“To solely focus on taking on a huge amount of debt and believe that this will be enough to create profits is folly. To ensure that you will be profitable you will have to focus on making operational changes that enhances the value creation of the firm. Without that you are just entrusting luck to help you out at the end. While this might have worked earlier it does not today due to the competition within our industry. […] It’s imperative that we from day one have a plan in motion regarding how we are going to improve the operations and follow it continuously.” – Managing director

The empirical evidence shows that all six case companies changed its CEO during their holding period. Furthermore, five out of the six case companies do it between the pre-buyout stage and the halfway through stage, and two do it between the halfway through stage and before the exit stage. In the comparison group there are seven firms out of 18 that changed its CEO over the holding period. The case company Exotic Snacks even undertook two changes in the position of CEO over the holding period.

All of the interviewed at the private equity firm emphasized the importance of having the right management team in place to carry out the planned improvements and get it spread throughout the entire organization. As described by the managing partner:

“To get the desired change implemented we often start by looking from the top. We believe that it’s crucial to have confidence in the management team and particularly that we deem that the CEO is competent and able to implement the changes necessary. For instance, we often make changes due to a new strategic nature of the firm, in other words if we are going to adopt an aggressive growth strategy we want
someone that has experience and we believe in to captain the ship. [...] We are never afraid to take actions to get the change we need.” - Managing partner

Before the buyout the average level of working capital among the case companies was at 1.77, compared to an average of 2.26 among the comparison group. After the buyout the working capital level among the case companies did however increase to 2.25, with the comparison group increasing to 2.92. In the period before the exit the working capital level of the case companies decreased to an average of 1.14, while the comparison group had a slight decrease to 2.76. The decrease in working capital of the case companies ends up at a level of approximately 36% over the holding period. In the comparison group the development over the holding period of working capital were the opposite where they experienced an increase by approximately 23%. Lindab is a noticeable example of the trend among the private equity firms, going from a working capital level at 2.43 before the buyout, to a drastic increase at 6.58 halfway through, and then decreasing to 1.23 at the period before exit.

Table 4.6 Working capital

The CEO of Permobil argued that the private equity owners put a lot of emphasis on improving the working capital of the firm:

“I believe nearly all firms would gain a lot from being owned by a private equity player for a while. They provide a lot of tools to the firm that can be used to improve it. Maybe one of the clearest ones are the way they always push the firm to re-think and continuously improving the working capital. Working capital was one aspect that
our new owners focused on [...] First of all did the new owners explain the importance and implications of using the capital in the right way, and after that they really made us work with the accounts receivable, accounts payable, inventory and so on to become as efficient as possible.” - CEO of Permobil

Working capital is something the interviewed at the private equity firm sees as an aspect that often is focused on after a buyout. The managing director explains that working capital is often a big part out of the value creation plan for the acquired firm. He believes that this plan is one of the most crucial factors for improving the portfolio firm and that working capital hence becomes paramount. As he puts it:

“There's almost always a lot to be done within inventory management, accounts receivable and accounts payable. Especially within accounts payable, there is almost always a lot of value that can be gained there.” - Managing director

The investment director adds to this by highlighting that there is an old saying in the private equity industry that one can always make improvements in the area of purchasing. It doesn’t matter how good the management believe they are at this, you can always become more capital efficient by getting better payment terms and that this is something that private equity owners always prioritize. The partner adds that working with aspects such as working capital is a large part of private equity’s success simply since many firms doesn’t understand or take the time to understand how this can be managed to generate value.

The level of capital expenditure compared to revenue among the private equity case firms did decrease significantly during the holding period, going from 4.2% before the acquisition to 2.4% halfway and to 1.8% at the end of the holding period. The equivalent level in the comparison group was 3.3% at the first time period, 3.6% halfway, and 2.7% at the final stage.
When discussing private equity ownership’s influence on the level of capital expenditure the CEO of Permobil argued that debt removed the safety cushion the firm had in place which made the firm more reluctant to invest. However, the interviewed from the private equity firm argues that the level of capital expenditure should not be affected by the leveraged buyout and if it is, it is rather an effect caused by other changes in the firm. Downsizing capital expenditure in order to cut costs is something they claim that they see as negative and destructive to value creation rather than a way to increase the value of the firm. They mean that if capital expenditure is reduced due to the increased level of debt it is a signal of a poor debt structure, which puts the investment’s success at risk and can harm the long-term development of the firm. The investment director added to this by arguing that it is of paramount importance to not suffocate the portfolio firm’s capital expenditure level.

“There was a period where all private equity players said; strangle all capital expenditure that is not creating cash flow and profits here and now. However, everyone has realized that you need to have a story when you are going to sell the firm. [...] Then the firm can’t be impoverished, it need to show potential, growth in sales, it needs to be ready for a new journey. To build this story is crucial for an investment.” - Investment director

Making changes to the portfolio firm’s strategy is emphasized by both the partner and the managing director as vital and an area that impacts the portfolio firm’s value
creation substantially. By working together with top management before as well as after the acquisition, they develop a strategy for the firm’s development over the next five to seven years. They argue that almost all other changes within the firm are either a result of the changes in strategy, or actions to enable the strategy such as changes in management or a new financing structure. The strategy is often based on streamlining the firm towards their core business and divesting parts that are not in line with it. In addition to that the private equity owners continuously look at opportunities for how the firm can develop, for example by strengthening their position on their current market or perhaps by finding new markets to enter. The CEO of Permobil adds that when the firm underwent the leveraged buyout there was a discussion regarding how to tweak Permobil’s current strategy, and the focus was on how to enforce the firm’s core business. He also highlights that the new owners also assisted in identifying potential acquisitions that were useful for the strategy of the firm.

The interviewed at the private equity firm highlights that in order to enable a new strategy and to supervise it they put in place what they call a Program Management Office (PMO) at the portfolio firm. The PMO is usually a person that is recruited by the private equity firm but employed by the portfolio firm, and their responsibility is to support top management in the implementation of the new strategy as well as oversee major projects within the firm. They are recruited based on their experience of similar projects and are often a person the private equity firm has worked with before. The private equity firm sees the PMO as their extended hand within the firm and works as a complement to the regular reports they get from the company as well as their role within the board. The partner argues that the PMO is a crucial part added by the owners since it not only contributes with competence and expertise to the portfolio firm, but it also gives the private equity firm increased trust and insight into the portfolio firm. Both the partner and the managing director argues that the PMO gives them a sufficient level of indirect control and influence yet it still allows them to not be operationally active within the portfolio firm, which is something they stress is of great importance. In the case of Permobil the owners also advised that they should bring in a person with talent for economical functions that the owners had a relationship with earlier. The CEO of Permobil emphasizes that this person was helpful in many regards with implementing the firm’s strategy, especially since he enabled the development of the firm’s reporting system that in the end gave the
management the possibility to act proactively instead of reactively due to better real-time numbers.

5. Analysis

5.1 Financial Engineering
Historically, there has been a consensus among researchers within the field of private equity that one factor in leveraged buyouts that has a large impact on the portfolio firm’s operations is the debt taken on when acquiring the company. The increase in debt has been argued to mitigate agency costs in the firm by reducing the level of free cash flow, which has been one of the major arguments for why private equity is a superior ownership structure. The debt has also been argued to impact the firm’s operations by forcing management to prioritize interest payments over value generating investments for the firm.

Our study shows that the case companies took on more debt than the comparison group and that it increased drastically from the point before entry to the halfway through mark. From the viewpoint of the private equity firm, debt allows them to finance the acquisition with less equity of their own, which is favorable from a financial standpoint. All of the interviewed personnel at the private equity firm argue that debt constitutes a large part of their acquisition strategy, but that the nature of debt has changed within the leveraged buyout industry in recent times. The partner highlights this transformation when he states that private equity firms work with debt in a much more sophisticated way today and that this capability has become a requirement to compete within the industry. Although all the personnel of the private equity firm state that the debt structure should have as little impact as possible on the acquired company’s operations.

The CEO of Permobil does however provide a different picture, where he argues that the debt the firm had to take on had a rather large impact on the firm, especially in the first year of the holding period. He argues that making the required payments on the debt forced them to hold off on certain beneficial investments that they had otherwise made. This impact was although reduced during the holding period as the cash flow of the firm improved and as the firm was able to amortize a portion of the debt in the first years, which they were encouraged to do by their owners. The result from the case companies shows that this is a trend that can be seen
in general as well; the debt increases after the buyout but decreases in the second half of the holding period. This trend aligns with the story described by the CEO and can be seen as a pattern among the case companies, meaning that the private equity ownership creates a focus on paying off the debt in the beginning of the holding period. Hence it is possible to draw the conclusion that although the debt may have a significantly lower impact on the portfolio firms today than in the earlier wave of private equity, it still influences the value creation in a potentially negative way in the early stage of the holding period where the focus becomes on amortization of debt.

The study provides indications that private equity ownership does not affect the level of free cash flow, hence making the positive effects that theory predicts, such as a reduction in agency costs, less evident. The interviewed at the private equity firm states that is not a tool they utilize to impact the behavior of top management. The investment director of the private equity firm argues that excess of free cash is impacted by other actions they take in order to improve the capital structure of the portfolio firm, but that it is not something they work directly with. He states that this was rather something that was done in the first wave of private equity and argues that free cash flow is a measure that can be improved in certain cases where the acquired firm has been poorly managed before the acquisition. The results from the case companies supports the view that the private equity owners do not work actively with free cash flow, by showing that the level of free cash flow have increased during the holding period in a majority of the cases. Contrary to this, the CEO of Permobil states that the level of free cash flow was decreased in his company, which is supported by the quantitative results of Permobil. He does however argue that this was a result of management getting a better understanding of how financial aspects such as free cash flow impacted the firm, rather than any directive from the private equity owners. In other words, the reduction in free cash flow was an indirect result of the new ownership rather than a direct one.

One impact of the private equity ownership that was evident from all of the interviews and aligning with the theory within the field was that the value creation of the portfolio firm was enhanced by the financial expertise contributed by owners. The ownership allows the portfolio firms access to improved sources of financing, which has been portrayed as problematic in a Swedish context. This expertise is a natural
part of the private equity firms since financing investments is a much larger part of their routinely and daily operations than in any portfolio firm. This impacts the value creation of the portfolio firms by enabling them to pursue investment opportunities that would not been feasible before the private equity ownership, thus providing them with a competitive edge.

5.2 Governance Engineering
The theory of the effects of private equity ownership predicts that changes within corporate governance have a substantial positive effect on agency problems in the firm. This is achieved by having top management buy into the firm as well as through extensive incentive programs, thus creating a goal alignment between the managers as employees and the private equity firm as owners of the portfolio company.

The prediction in theory that private equity owners use ownership among top management, and that this creates a goal alignment in the portfolio firms, is supported by the study’s results. The CEO of Permobil argues that having an ownership stake in the firm inspired him, and other parts of top management, to act as owners rather than managers, which enabled them to focus on what is good for the company in a higher degree. There is strong evidence from both the private equity- and the portfolio firm’s perspective that the goal alignment is a crucial factor for the holding period to be successful. The CEO argues that sharing the same vision and goals as the owners had a huge positive effect on the operations and value creation of the firm. The private equity personnel states that having a top management that is on board with the changes they want to make in the portfolio firm is a required element for an acquisition to be successful. The picture portrayed by the CEO as well as the private equity representatives does however characterize the improvements within governance engineering as something that enables other value creating activities to be successful rather than actions that generates value in itself.

However, our study contrasts theory by providing indications that incentive systems are not a tool that private equity owners work with in a higher degree than other forms of ownerships. The quantitative data shows that incentive programs increased in half of the private equity owned firms, yet by an arguably low level. The personnel at the private equity firm all state that incentive programs is a measure they rarely work with, and in the cases that it’s implemented in the portfolio firms it is done on the
management’s initiative. This is supported by that the level of incentive based compensation is in fact lower among the case firms than in the comparison group. Both the private equity personnel as well as the CEO of Permobil argues that incentive programs among top management aren’t used since a goal alignment is already created using financial incentives; management being owners in the firm.

After the entry of a private equity owner it is also evident from the study that there are major changes within the board composition, which aligns with the theory. All the interviewed state that the portfolio firm is influenced by the changes in the board, and that this is a large part of how the ownership impacts the operations and value creation. Compared to how influence is traditionally enacted through the board the private equity firm is more focused on using it to supply expertise and knowledge to the firm, instead of using it as a measure to control it. Although, it can be argued that this is a natural effect of the goal alignment; since the top management has become owners there is less need to have an extensive formal control system to guide them. The personnel of the private equity firm argue that they perceive the board as a place where they can supply competence by recruiting individuals that are suitable to support and execute the strategy of the portfolio firm. In this regard the private equity firm personnel argue that the ownership that follows a leveraged buyout differs from other ownership types in a way that brings positive impacts on value creation. This view is further strengthened by the CEO of Permobil.

The study indicates that active ownership also comes in the form of more frequent communication. The CEO of Permobil states that both the informal and formal contacts with the board increased after the acquisition, and that he saw the board as a resource in a much higher degree than before. The private equity personnel states that while many changes are made on a case-by-case basis, one ingredient that is recurring in every acquisition is active ownership.

Another area where the study goes against theory is regarding how private equity affects the size of the board. The theory predicts that the size of the board is to decrease after an entry of a private equity owner, yet the empirical evidence shows that the board size in fact grew during the holding period, although not in any substantial degree. The average size of board among the case companies is also in fact higher than in the comparison group. This evidence supports the private equity personnel, which state that the actual size of the board is not an aspect of importance.
Instead, they focus on having a board with the suitable competence and expertise to support the portfolio firm, and that the composition of the board often changes during the holding period due to the evolving needs of the firm.

5.3 Operational engineering

The theory within the field of private equity predicts that the leveraged buyout evokes a plentitude of changes that impacts the portfolio firm’s operations. The changes comes in forms of increased productivity, reduced capital expenditure, as well as better focus on working capital, removing inefficient managers and redefining strategies. The quantitative analysis of the average revenue per employee indicates that the case companies obtained an improved effectiveness compared to its comparison group. There could be a vast number of reasons for this, yet as the interviewed emphasized the portfolio firms are being managed on a case-by-case basis. There is following no universal rule that dictates what actions should be taken at entry of the private equity ownership, nor a clear blueprint that always guides the way to success. However, the interviewed from the private equity firm all argued that without a profound focus on operational engineering the private equity firm’s future would be at risk due to the intense competition and maturity of the industry.

Even though there are no one-way-recipe for creating value, there was a consensus from the interviewed regarding that the operational engineering takes its starting point even before the acquisition, in the due diligence process. At this stage key areas for improvements are identified, and from that the value creation plan are being established. The interviewed further provides evidence to that working capital and strategy often appears as major parts in this plan.

The study indicates that the portfolio firms are becoming more capital efficient, in regards to working capital, during the holding period. The case companies are experiencing a substantial decrease in working capital over the time period with 36% while the comparison group faced an increase by 23%. All the interviewed highlights the focus a leveraged buyout evokes in this regard. The CEO of Permobil emphasizes that the new owners both explains the upsides of being capital efficient and provides the necessary tools to be it. He concretizes this by stating that Permobil employed a person with skills in modifying and improving economy functions at the firm, at the advice from the owners. The private equity personnel’s view aligns with
the CEO’s and they further emphasize that there are always room for improvements when it comes to working capital, especially in accounts payable.

The second recurring aspect in the value creation process, redefining the strategy is crucial for the value creation in the portfolio firms according to the results of this study. The personnel of the private equity firm emphasize that almost all of the changes that comes during the holding period are either changes that comes as a result of the alteration of strategy or changes that are implemented to aid it. What makes private equity owners special in this regard is that they are repeated actors when it comes to taking over firms and elevating its strategy. The private equity owners possess the expertise and network necessary, compared to most publicly owned firms, and these abilities are being put to use to enhance their portfolio firms. The way the private equity owners redefine the strategy varies, yet the emphasis is often on streamlining the firm’s business towards its core competence and divesting the parts that doesn’t align with it. The CEO of Permobil also provides evidence that the new ownership acts as an enabler both by providing the courage to think big but also through identifying possibilities, and ways to finance those, that can elevate the business of the portfolio firm. These possibilities can come in the form of potential mergers and acquisitions or pushing the firm to enter and exploit new markets or product segments. The interviewed of the private equity firm also highlights that they recruit a PMO to facilitate and aid the top management in implementing the strategy. This person possesses the necessary skills and knowledge to enhance the process as well as acts as the owners extended hand.

The study supports theory in that private equity ownership actuates more change in top management than other forms of ownership. To have a CEO that has the confidence of the owners and is competent and suitable for the future strategy of the firm is highlighted as a key success factor for implementing the changes that should lead to value creation.

There is an ambiguity in the results of our study regarding how a leveraged buyout impacts control of spending and capital expenditure. The personnel at the private equity firm emphasize that the days when private equity owners solely focused on shutting everything that did not create value here and now down is a relic of the past. For instance, to downsize capital expenditure in order to cut cost is perceived as destroying value since the owners has to plan ahead and prepare the portfolio firm for the exit. At that point the firm cannot be impoverished, instead it
has to show potential and too much focus on corporate spending and tightening of capital expenditure can harm that. Although, as earlier mentioned, the CEO of Permobil provides evidence that the debt based structure that follows a leveraged buyout may impact the portfolio firm to reduce its capital expenditure, which may harm the firm’s future value creation.

6. Concluding discussion

From the results of this study it is possible to draw the conclusion that while financial engineering may still be a major aspect of private equity firm’s success of today, its impact on value creation in the portfolio firms have changed in the second wave of private equity. Overcoming agency costs by working actively with free cash flow problem is not something that can be seen in any of the empirical evidence, and it is rather handled through governance engineering. The most notable effects the financial engineering has on portfolio firm’s value creation are by affecting its investment strategy through expertise, and by forcing the management to divert cash to interest payments and amortizing debt. Having access to financial expertise may help portfolio firms to create value by allowing them to have an offensive investment strategy compared to their competitors due to the firm’s access to cheaper capital, thus giving them a competitive edge. The debt may although also force the management to make interest payments instead of beneficial investments, thus making the debt a burden for the company and impairing its value creation. However, the study provides indications that private equity firms are working towards reducing this negative impact by having a lower level of debt today than in the first wave, and by tailoring the debt structure to every portfolio firm’s nature.

The study also provide indications that the interface between and impact of financial-, governance- and operational engineering has transformed. In the first wave of private equity the value creation was primarily deriving from financial engineering, yet arguments can be made that the contemporary value creation comes from factors encompassed by operational engineering. The development of the private equity industry, where it has become mature with intense competition, has changed and eradicated some of the effects of financial engineering such as entrusting the leverage to create value. Every firm, with or without being private equity owned, can take on debt and the entire industry is becoming increasingly professional which removes
much of the gains from that debt mitigates agency problems. Although it should be noted that financial engineering still is a requirement for value creation through the ability of setting an appropriate debt structure as well as a way of enhancing the portfolio firms through the expertise that can be utilized to improve its terms of finance.

Having a positive impact on the value creation within portfolio firms’ operations is a large part of what constitute competitiveness among private equity firms in the contemporary leveraged buyout industry. While the impact of financial engineering can be argued to have decreased, there is strong evidence that the influence of governance- and operational engineering have improved. In this sense, the largest positive impact of governance engineering is creating a goal alignment between top management and the owners through a shared ownership of the firm as well as by being an active owner and supplying expertise through the board of directors. Based on the evidence from the representatives of the private equity firm and the CEO of Permobil, it is possible to argue that the primary effect that the governance engineering brings is that it indirectly creates value by enabling the changes in operational engineering to be executed efficiently. Indications from this study highlights that the direct value creation that comes from the private equity ownership is deriving from the changes in the portfolio firm’s operations. The actions that are being emphasized as the most influencing are how the management of the portfolio firm re-thinks and improves its capital efficiency and strategy after the leveraged buyout, as well as how the private equity owners make sure there is a capable management in place to execute the value creation plan and its intended areas of improvements.

6.1 Future Research

This study provides indications of that the nature of how a leveraged buyout is influencing the portfolio firm’s value creation is transforming from relying on financial engineering in the first wave of private equity to becoming more oriented towards actions encompassed by governance- and operational engineering. However, these indications requires to be tested by a comprehensive quantitative study to fill the gap in research within. Furthermore, there is a need for future in-depth case studies to provide insights into why these case-by-case changes are actuated by the owners and whether it is possible to learn the reasoning behind the changes.
7. References


8. Appendixes

Appendix 1, Interview questions

- **Introduction questions**
  - Is it okay if we record this interview?
  - What is your position within the firm?
  - How many years of experience do you have within the current private equity firm / the private equity industry?
- **Financial Engineering**
  - What financially oriented actions does the private equity owner take during the holding period to enhance the value creation of the acquired firm?
  - What effect, if any, does the debt that follows the leveraged buyout have on the acquired firm?
  - How do you perceive and work with the portfolio firm’s free cash flow?
• In which way does private equity ownership bring useful financial expertise and if they do, how does it impact the portfolio firm?

**Governance Engineering**
• What governance oriented actions does the private equity owners take during the holding period to enhance the value creation of the acquired firm?
• How does the interaction look like between the private equity firm and the portfolio firm?
• How much contact do you have and how does the contact take place?
• How do you change the board after the buyout and why are these changes made?
• Do the changes impact the size of the board?
• What competence is often added to the board after a buyout?
• In which way does the private equity ownership foster goal alignment and how do these measures impact the portfolio firm?
• What is the private equity firm’s view on the use of incentive programs?

**Operational Engineering**
• What operational changes does the private equity owners implement in order to create value during the holding period and how and why are these implemented?
• How does the private equity process of implementing these changes look like?
• What actions are recurring after a leveraged buyout?
• Do you often change CEO as a result of the new ownership and if yes, why?
• How do you work with the portfolio firm to improve its margin or cutting its costs?
• How do you work with working capital? Why is this area of importance?
• How is the level of capital expenditure impacted by the new private equity ownership in general and why?
• How is the strategy of the portfolio firm in general affected by the new ownership and why?
• How does the process of redefining the portfolio firm’s strategy look like?

**Concluding questions**
• Due to your expertise of the private equity industry has the way a leveraged buyout impacts a portfolio firm’s value creation changed and if yes, why?
• Do the private equity firm work differently with its acquired firms and if yes, why?
• Has the importance of financial-, governance- or operational actions decreased / increased in your experience? If there is a change how has it changed and why?

**Appendix 2, Quantitative data**

**Debt to assets ratio**
Free cash flow to equity

Compensation to revenue
Average size of board
Revenue per employee

Working capital

Level of capital expenditure